

SERVICE AND SUPPORT NOTICE

APPLE /// INTERLACE KIT: INSTALLATION INSTRUCTIONS

A. INSTALLING THE APPLE /// INTERLACE KIT

NECESSARY TOOLS:

#1 and #2 Phillips Screwdriver
Needle Nose Pliers
Apple /// Interlace Kit

1. Remove the Apple /// Main Logic Board (the bottom tray need not to be removed from the Main logic Board) and top cover. For instructions on removing the Main Logic Board refer to page 1.15 of the Apple /// Technical Procedures.
2. Place the Main Logic Board on a flat surface in front of you so that the 3 Pin Molex Connector at J-19 is located to your right. Refer to the illustration of the A/// Main Logic Board (Figure 1). Due to the fact that a small percentage of Main Logic Boards have had the 3 Pin Molex Connector at J-19 clipped, it is necessary to inspect the connector. If the 3 Pin Connector has not been clipped then proceed with the installation instructions. If the Main Logic Board has had the 3 Pin Connector clipped you will need to obtain a Main Logic Board with the connector in place.
3. Locate the IC socket at G-9 and remove the old IC. Insert the New IC into the empty socket with the notch on top of the chip facing toward the front as shown in Figure 1.
4. Locate the Disk Drive Ribbon Cable hole in the casting (see Figure 2). Insert and route the Interlace Switch and attaching wires through the hole as shown.
5. Turn the Apple /// right side-up and locate the square hole in the upper right hand corner of the casting (refer to Figure 2). This is the hole you will install the Interlace Switch in. Because of the lack of room, it will be necessary to hold the hex nut with needle nose pliers. Insert the switch into the square hole and turn the switch clockwise until it fits snug against the casting.
6. Reinstall the Main Logic Board. Be sure the two pin Molex connector is connected to the lower pins of the 3 pin Molex connector at J-19 such that the lowest pin (refer to Figure 1) marked pin #3 has two wires going to it. Note the orientation of the ten pin Molex connector so that the 4th pin marked pin #7 at J-20 is connected.
7. Make all the necessary connections to the Main Logic Board and reinstall. Replace the Apple /// cover and make the necessary connections to hook-up the Apple /// to the external drive and monitor. Boot any word processor, switch on Interlace to verify that it is functioning properly.
8. If you have followed these procedures correctly, the space normally found in the characters will be filled in when the Interlace is activated.

B. INSTALLING THE MOLEX CONNECTOR

CAUTION: Any damage to the Main Logic Board resulting from the improper soldering of the three-pin Molex connector will be the responsibility of the Dealer. Apple will not accept such a board as an exchange module.

Remove the solder and/or wires from the holes marked J-19 on the Main Logic Board. The directions below for desoldering explain how this is done. Place the Molex connector in the holes. If the connector is a two pin Molex connector, place it in the two holes closest to the keyboard end (front) of the Main Logic Board. Finally, solder the connector to the board. The directions below for soldering explain how this is done. Be careful not to hold the connector by the metal leads as these leads heat up very quickly and can burn your fingers.

Soldering:

The first step is to properly clean and tin the soldering iron. It is important when soldering to avoid a cold solder joint. Proper soldering technique to avoid this calls for heat to be applied to the solder joint by a solder pencil or gun before placing the solder on the joint. When the joint is heated, bring the solder to the joint and allow the solder to flow over the parts being soldered, in this case the connector and printed circuit board pads. When the solder starts flowing, stop feeding more solder but keep the solder pencil or gun heating the joint. This will boil the solder flux away from the parts and allow the solder itself to adhere properly to the parts. Be careful not to apply too much heat as this can damage semiconductor components and cause printed circuit board pads to lift away from the board. Finally, remove the pencil or gun and keep the soldered joint stationary while it is cooling. After the joint has cooled, the parts can be moved. It doesn't take much solder to make a connection and too much solder tends to short the connection to nearby components, so use solder sparingly.

Removing Solder or Wires:

The best way to remove solder is with solder wick. Another method to remove solder is with a solder vacuum. To use the wick, the end of the wick is placed over the solder joint and then heat is applied to the joint until the solder melts. The solder will flow up the solder wick. The wick is then removed and the used end piece is cut off of the wick. This process is repeated until there is no solder left on the joint. To use the vacuum, the solder joint is heated with the solder pencil or gun until the solder is flowing. The vacuum is then placed over the joint and the solder is sucked into the vacuum. This process is also repeated until no solder remains.

After removing the solder, the parts can be freed by heating them once more and separating them with a pair of pliers. If this takes any noticeable pressure at all; if it does too much solder remains on the joint. Care must be taken with printed circuit board pads so as not to pull the pads off of the board. Likewise, component leads must not be pulled off of the components and the heat weakens the bond between the leads and the components. **BE CAREFUL!**

If the old solder cannot readily be heated to flowing, usually the addition of some fresh solder will cause both the new and old solder to flow. As with soldering parts together, a clean solder pencil with fresh solder applied to it gives the best results for melting solder or heating up components.

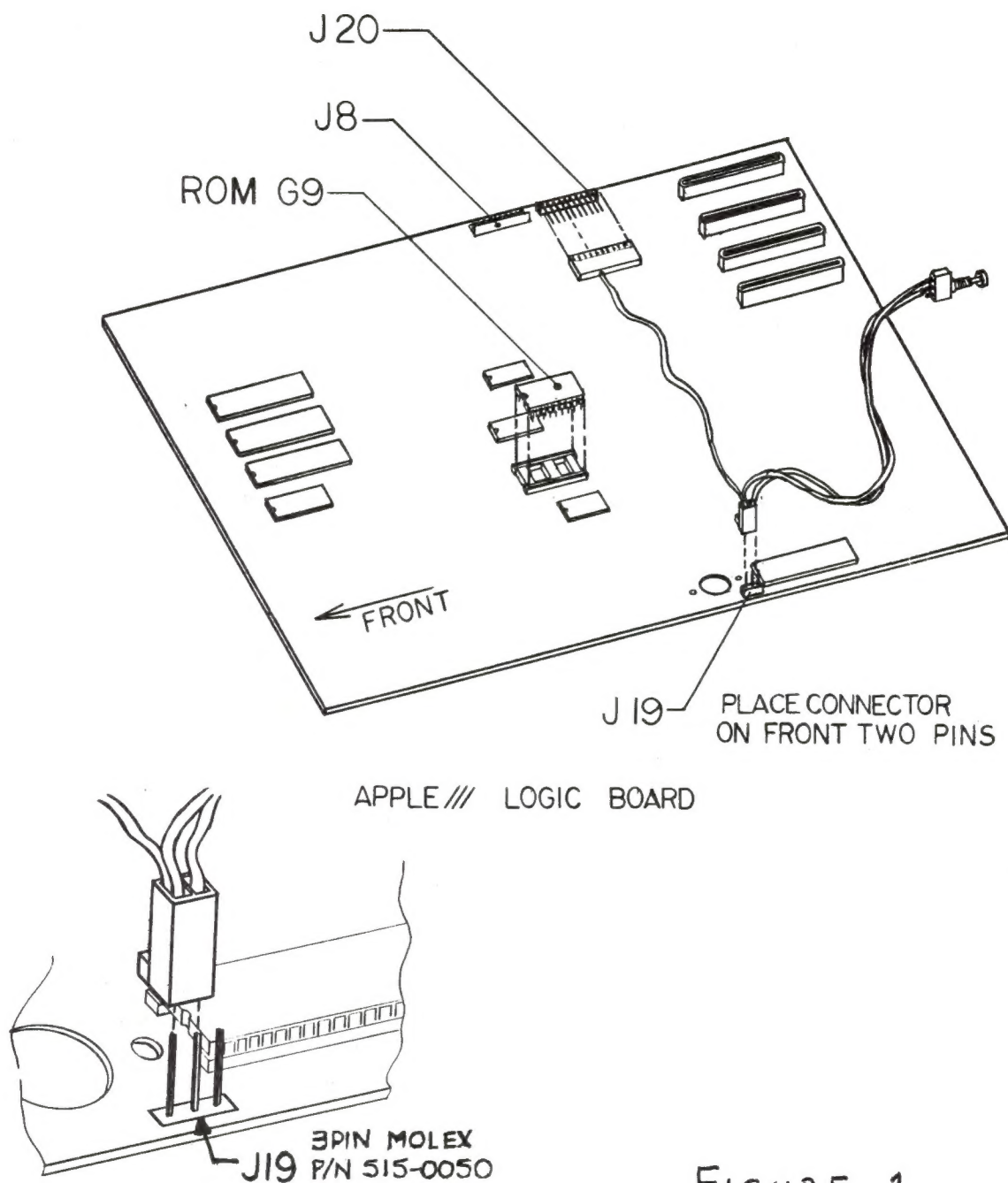


FIGURE 1

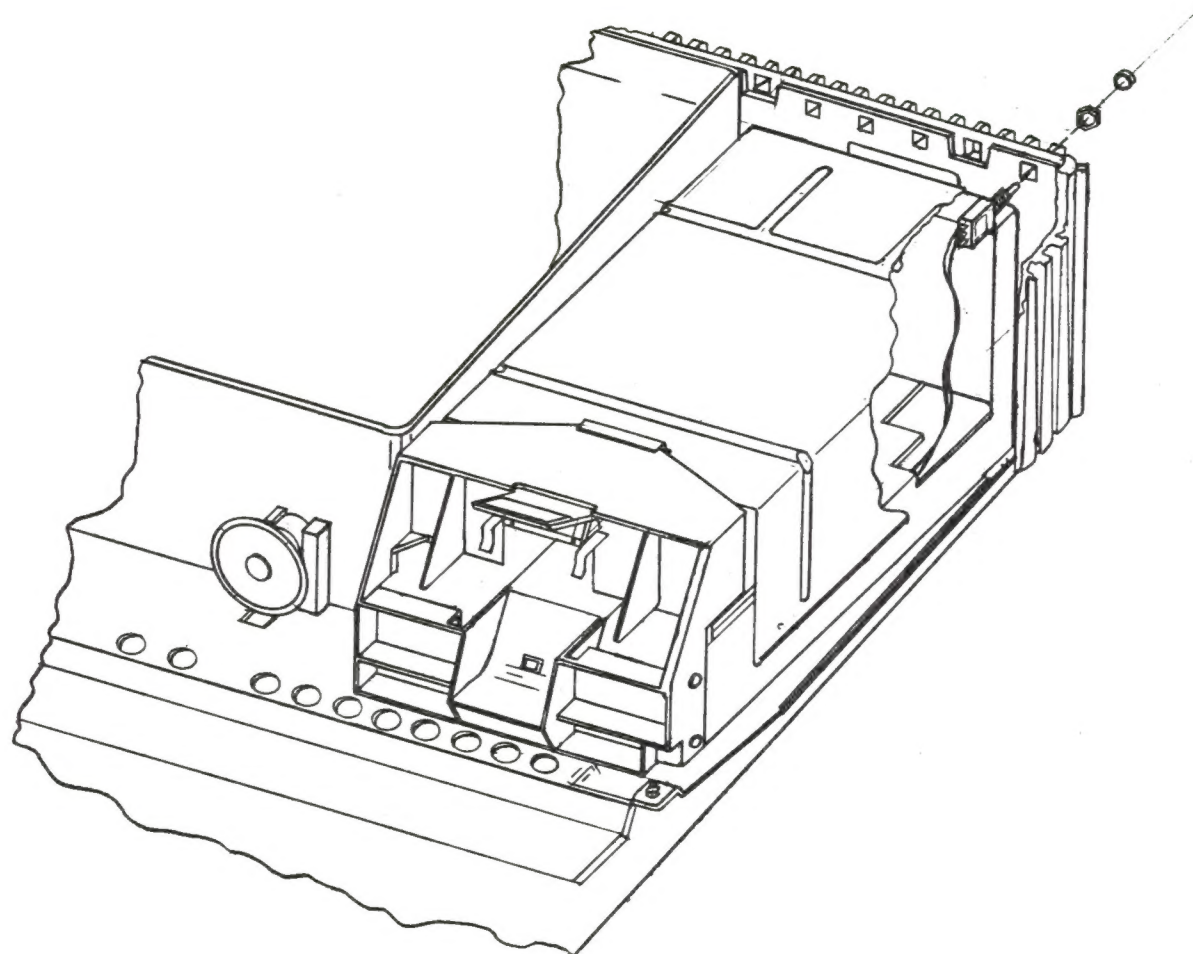


FIGURE 2

 apple computer inc.

SIZE
A

DRAWING NUMBER

SCALE:

SHEET 4 OF 4